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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,916	05/17/2002	Robert Aigner	S101-012	1636

21971 7590 03/01/2004

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EXAMINER	
KRISHNAN, SUMATI	

ART UNIT	PAPER NUMBER
2875	

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/031,916	AIGNER ET AL.	
	Examiner	Art Unit	
	Sumati Krishnan	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-16 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 19 January 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 0402.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities:

Line 4 states "wherein the first of waid waveguides", which should be changed to "wherein the first of said waveguides"

Line 5 states "each of waid" which should be changed to "each of said"

Appropriate correction is required.

Double Patenting

Claims 1-16 of this application conflict with claims 1-18 of Application No. 10/031901. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harman (US 5727099) in view of Nakamura (US 5361382).

Regarding claim 1, Harman discloses an optical coupling device for injecting light between end faces of two optical waveguides, said device comprising a first and second holding block (34 and 40), a first and second optical waveguide (28 and 32) wherein the first of said waveguides is an optical fiber, and each of said waveguides has an end face, a holding element 26 for holding said first optical element, a spring element (a second half of element 36 – the half located closer to element 40 in figure 2) supported in said first holding block 34, and an elongate variable length element (see figure 2, where the variable length element would be a first half of element 36, the half located closer to element 34) wherein said variable length element is supported on said first holding block and its length is paralleled to the face of the second optical waveguide and said variable length element ends in contact with said holding element such that it is possible to vary the geometrical position of the first optical wagveguide with respect to the second optical waveguide, and wherein the spring element is positioned between the holding element attached to said variable length element and the second holding block and is supported on said second holding block, said spring element having the form of a porous body having holes (see figure 2) selected from the group consisting of slots and bores extending perpendicular to

the length of the direction of the variable length element and paralleled to the end face of the second waveguide.

Harman does not disclose the second optical waveguide being a waveguide chip. However, it is well known in the art to integrate a fiber onto a chip, and it especially would have been obvious in the invention of Harman, who discloses in figure 7, multiple fibers 94 and 96 used as the "second optical waveguide" 32. Nakamura et al (US 5361382) discloses the integration of multiple fibers on a switch and teaches that such integration streamlines the device. Therefore, it would have been obvious to one of ordinary skill in the art to have integrated the second optical waveguide 32 of Harman onto a waveguide chip since such a procedure is extremely common and done for streamlining effects.

Regarding claims 2-5, Harman does not disclose the holding element, variable length element and spring sections formed in particular pieces, integral and seperate as claimed in these claims. However, it is well known to make elements in a device integral or separable where needed, see MPEP 2144.04; In re Larson 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965) and In re Dulberg; 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made these three pieces formed from one piece or from separate pieces as claimed in order to achieve greater manufacturing flexibility resulting in reduced costs.

Regarding claim 6, Harman discloses an even number of slots, see figure 2.

Regarding claims 7-12, Harman discloses the spring element 36 formed by slots (or "bores") in the variable length element.

Regarding claim 13, Harman discloses the variable length element under pre-stress in the initial position of the variable length element, by virtue of its being a spring.

Regarding claim 14, Harman discloses the two holding blocks 40 and 34 connected to eachother by a "link." See figure 2 which depicts a definite link between these two elements.

Regarding claim 15, Harman does not disclose the two holding blocks connected to each other by a frame, a respective link being provided at the top and bottom between the two holding blocks. However, Harman discloses at column 4 lines 30-40 that it is possible to use waveguide support members of other geometries or shapes. It is well known in the art that adding a frame or support member between two holding blocks supports the entire device from oscillations in various directions. It would have been obvious to one of ordinary skill in the art to have modified the invention of Harman to include this frame member because Harman discloses that the support geometry can be varied and this variation would give the device structure greater mechanical support.

Regarding claim 16, Harmans holding section 26 has a ferule 24 in which the optical fiber is fixed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumati Krishnan whose telephone number is 571-272-2372. The examiner can normally be reached on 8:00 am - 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SK

Stephen Husar
Primary Examiner